



THE UNIVERSITY OF
MELBOURNE

Department of Mechanical Engineering

SEMINAR SERIES 2011

Dr Stuart Warden

Director of Research
Department of Physical Therapy
Indiana University (IU)
USA

Friday 10th June, 1pm

Lecture Theatre
Level 3, Building 170
Mechanical Engineering
Grattan St, Parkville

Lifelong skeletal benefits of exercise during growth: an exercise in structure.

MORE INFORMATION

For more Mechanical Engineering seminar information contact:

Professor Ivan Marusic
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Abstract:

Bone is mechanosensitive, and responds and adapts to its mechanical environment. The general rule is that increased mechanical loading results in bone accrual whereas reduced loading results in bone loss. Consequently, mechanical loading in the form of exercise is advocated as a means to increase bone mass and thereby enhance bone strength. Exercise induces greatest gains in bone mass during growth, yet reduced bone strength is an age-related phenomenon. This has raised the question of whether exercise-induced bone changes when young persist into adulthood. This presentation will present original research data addressing this question.

Bio:

Dr Stuart Warden is Associate Professor and Director of Research within the Department of Physical Therapy at Indiana University (IU), and Associate Professor in the Departments of Anatomy and Cell Biology, and Biomedical Engineering at the same institution. Stuart also serves as the Director of the IU Center for Translational Musculoskeletal Research and is Interim Associate Dean for Research within the School of Health and Rehabilitation Sciences.

Stuart completed his PhD training with Dr. Kim Bennell at the University of Melbourne in 2001. He moved to the United States in 2002 to complete his post-doctoral training at IU with Dr. Charles H. Turner before starting on faculty in 2004.

Stuart's research interests are in the normal physiology and healing of connective tissues, including bone, muscle, tendon and ligament. He is particularly interested in bridging the gap between basic science and clinical research by translating findings from cell- and animal-based models to clinical populations, and vice versa.

For his research endeavors, Stuart has been awarded numerous grants from the National Institutes of Health, and has been the recipient of awards from the American College of Sports Medicine, American Society of Bone and Mineral Research, Orthopaedic Research Society and Sports Medicine Australia. Stuart is currently a member of the editorial boards for five international journals, has reviewed papers for over 60 individual journals, and has over 75 peer-reviewed publications.